

**ILLINOIS COMMERCE COMMISSION**

**DOCKET NO. 07-0331**

**EXHIBIT NO. 1.0.1**

**SUPPLEMENTAL DIRECT TESTIMONY OF ARTHUR R. OLSON**

**RME ILLINOIS, LLC**

1 Q. State your name for the record.

2  
3 A. Arthur R. Olson. I am managing member of RME Illinois, LLC, an Illinois  
4 Limited Liability Company.

5  
6 Q. What is the total amount of acreage for the area for which a Certificate is being  
7 requested in this proceeding

8  
9 A. The area for which the Certificate is being requested in this proceeding is 35.1  
10 acres.

11  
12 Q. What is a breakdown by acreage, of the current use of the total acreage for the  
13 area that is the subject of this proceeding

14  
15 A. The property is mostly wooded second growth forestland with some wetlands and  
16 scrub areas. There is currently one residence on the property. The Residence  
17 occupies approximately 5.8 acres with lawn and buildings. The wetlands occupy  
18 approximately 3.1 acres. The small trees and scrub areas occupy approximately  
19 9.0 acres. The second growth forestland occupies approximately 17.2 acres.

20  
21 Q. What is the amount of acreage that may be removed from current use due to the  
22 construction of the subdivision

23  
24 A. The entire site is being developed with approximately 18.1 acres in lots and  
25 roadway right-of-way and 17.0 acres in open space which includes the onsite drip  
26 dispersal system which will have a prairie grass and prairie wildflower cover.

27  
28 Q. Give a brief description of the sewer facilities including statements of the design  
29 capacities of the components of the sewer facilities and the maximum hourly and  
30 average inflows which are anticipated

31  
32 A. The Decentralized community/cluster wastewater system is composed of a 1500  
33 gallon Orenco fiberglass septic tank CW style with pump vault (step assembly),  
34 Biotube filter, Orenco Effluent Pump Model PF100511 and a Vericom Remote  
35 Telemetry System on each lot. The septic tank treated effluent is pumped under  
36 pressure in a main line used by all residences of the subdivision to a 22,000 gallon  
37 fiberglass recirculation-blend tank, manufactured by Xerxes, with associated  
38 pumps and remote telemetry controls in conjunction with six Orenco AdvanTex  
39 AX100 Media Filters for Advanced Treatment. The advanced treated effluent is  
40 forwarded to a 10,000 gallon pump tank manufactured by Xerxes with associated  
41 pumps and remote telemetry controls. The effluent is pumped through an  
42 American Manufacturing multizone drip dispersal system control unit with  
43 associated telemetry into eleven drip zones utilizing Bioline drip tubing for in  
44 ground dispersal. The average residence will use approximately 200 gallons of  
45 water per day or 8800 gallons for the entire proposed system. The six advanced  
46 AdvanTex AX100 media filters, pumps and tanks have an average capacity to

process 15,000 gallons per day and a maximum capacity of 30,000 gallons per day. The subsurface dispersal system is designed for a capability of 17,720 gallons per day. The system has a safety factor of over 1.7 for the entire system.

Q. What type of pipe is being used in the sewer collection system include the type of material from which the pipe will be manufactured?

A. The sewer lateral from the septic tank to the main line shall utilize 1" HDPE SDR-11 PE 3408 pressure rated for 160 psi butt or fusion welded and the main line sewer shall utilize 2" HDPE DR-11 PE 3408 pressure rated for 160 psi butt or fusion welded.

Q. Provide a statement evidencing that the sewer mains and sewer laterals proposed are of adequate size and are to be laid to permit an expeditious flow from point of origin at the customer's premises to the point of sewer treatment or disposal and if land contours are not such as to permit transport of the outflow by gravity, will adequate lift stations or other adequate sewer facilities be provided as a part of the Company's sewer system and if, in lieu of or as adjunct to such lift stations, force pumps are proposed to be installed to move sewage away from a customer's premises, a full description of the equipment and of the manner and means of its operation shall be stated.

A. The system shall be composed of a 4" Customer sewer lateral from the customer's premises to the STEP (Septic Tank Effluent Pump) tank. This sewer shall be a gravity sewer and shall be installed according to the plumbing code. From the STEP tank to the Collection sewer a 1" lateral shall be installed. The sewer lateral shall be manufactured of HDPE DR11 PE 3408 pressure rated at 160 psi. The lateral shall be pressurized by means of the STEP system located in the septic tank. A high head effluent pump, Orenco Model PF100511, is utilized to pressurize the system. The pump is sized and performs within the manufactures published pump curve for the system as designed. Typical effluent sewer mains are two inches in diameter for up to 100 equivalent dwelling units and four inches in diameter for up to 500 equivalent dwelling units. The peak flow rate for the proposed subdivision is 19.5 GPM which is well within the acceptable flow parameters for a 2" sewer main. The pump selected for each residence is based on the flow in gallons per minute and the TDH (total dynamic head). The pump selected for this installation is the Orenco PF100511 pump with a 1/4" flow controller which limits the flow from the tank to 5 GPM. The pump selected is well within the manufactures pump curve based on flow and TDH. Backflow preventers are installed in the septic tank and at the service connection to the main line to prevent wastewater from backing up into the residence. A roll seal valve is to be installed in the main line to keep the main sewer full at all times especially during periods of low flow to avoid the tendency for air and gas to coalesce at high points and restrict the system's hydraulic capacity. Automatic air release valves are also installed in the main line to prevent air and gas accumulation which could diminish the system's hydraulic capacity.

- 93
- 94 Q. Are there feasible alternatives to the proposed sewer system, such as connection
- 95 to an existing public utility or municipality sewer system or use of alternative
- 96 treatment such as lagoon and/or sewer treatment plant, together with reasons for
- 97 the choice selected.
- 98
- 99 A. There are no existing public utilities or municipality sewer systems for which
- 100 connection is feasible. A lagoon system for this property is impractical. The site
- 101 is very rolling and placing a lagoon would be difficult if not impossible. There is
- 102 not enough land outside of the wetland boundaries for the dispersal of the
- 103 wastewater by spray irrigation.
- 104 .
- 105 Q. Does the company have an Agricultural Impact Mitigation Agreement between
- 106 the Company and the Illinois Department of Agriculture, in regard to extension of
- 107 sewer lines [8IAC700, Appendix J, and 505 ILCS 77-Farmland Preservation Act]
- 108 and if the Company does not have an Agricultural Impact Mitigation Agreement,
- 109 does the Company plan on contacting the Illinois Department of Agriculture
- 110 concerning the Agreement?
- 111
- 112 A. The Company does not have an Agricultural Impact Mitigation Agreement and
- 113 does not plan on contacting the Illinois Department of Agriculture because the
- 114 facility is located entirely within the Corporate boundaries of the Village of Lake
- 115 Villa and no land or easements are required outside of the subdivision and
- 116 therefore the Agreement is not required.
- 117
- 118 Q. Has the Company contacted the Illinois Historic Preservation Agency to
- 119 determine if any portion of the proposed sewer has been identified in a historic or
- 120 archaeological area [20 ILCS 3420-Illinois State Historic Resources Preservation
- 121 Act]? If yes please explain the results of such contact. If no, please indicate
- 122 whether such contact will be made and when.
- 123
- 124 A. The Illinois Historic Preservation Agency has been contacted with the results
- 125 being "It has been determined, based on available information, that no significant
- 126 historic, architectural or archaeological resources are located within the proposed
- 127 project area".
- 128
- 129 Q. Has the Company contact the Illinois Department of Natural Resources and the
- 130 U.S. Army Corps of Engineers to determine if any portion of the proposed sewer
- 131 main extension has been identified as a flood plain area and/or wetland [20 ILCS
- 132 830 – Integrated Wetland Policy Act of 1989, 615 ILCS 5 – Rivers, Lakes, and
- 133 Streams Act, and CFR 401]? If yes, please identify the agency contacted and
- 134 explain the result of such contact. If no, please indicate whether such contact will
- 135 be made and when.
- 136
- 137 A. The Company has contacted the Illinois Department of Natural Resources, the
- 138 U.S. Army Corps of Engineers and the Lake County Stormwater Management

Commission. The results of the contact is that the Department of the Army, Chicago District, Corps of Engineers has jurisdiction over the wetlands and as such states that the work within the subdivision is in compliance with Regional Permit 1.

Q. Has the Company performed an Endangered Species Consultation Process with the Illinois Department of Natural Resources for the construction of the proposed sewer main extension [ Ill. Admin. Code 1075, 520 ILCS 10/11 – Illinois Endangered Species Protection Act, and explain the results of such process. If no, please indicate whether such process will be undertaken and when.

A. An Endangered Species Consultation has been undertaken. The results state that there are no endangered or threatened species or Natural Areas present in the vicinity of the action and that the consultation is terminated.

Q. Has a list been filed with the Chief Clerk of the Illinois Commerce Commission a list containing the name and address of each owner of privately owned tracts of land upon which easements will be sought to construct sewer facilities, as disclosed by the records of the tax collector of the county wherein such land is located [83 Ill. Code 200.150(h)].

A. A list has not been filed as no easements are necessary on privately owned tracts of land for construction of the sewer system.

Q. What is the size, diameter, of the proposed sewer main extension. If the sewer main size is larger than eight inches (8”) in diameter, please explain who will be responsible for paying for the additional cost of the larger pipe. In addition, please provide a justification for installing a sewer main that is larger than eight inches (8”) diameter in size or smaller than six inches (6”) in diameter size.

A. The main line sewer to be utilized for this onsite system is 2 inches in diameter and is sized appropriately, based on standard engineering principals, for the proposed onsite decentralized cluster subdivision. No extension of this system into other areas is proposed or allowed because the facility is designed and sized to be contained entirely within the subdivision.

Q. Have any permits been issued by the Illinois Environmental Protection Agency for the construction of the proposed sewer system and if a permit has not been issued by the Illinois Environmental Protection Agency for the construction of the proposed sewer system, please explain why not.

A. No permits were issued or are required by the Illinois Environmental Protection Agency for construction of the proposed system with the exception of the filing of the Illinois Environmental Protection Agency, Bureau of Land, Class V Injection Well Inventory Form which was filed on March 1, 2007. An IEPA permit is not

required for an onsite system with in ground dispersal. For systems utilizing spray irrigation, lagoons, or direct discharge an IEPA permit would be required.

Q. Who the officers and directors of the limited liability company, the address of each, and the number of shares held by each and also what is the nature, character, and extent of the interest, if any, of any of the above officers or directors in any other sewer company, or in any other limited liability company, partnership, or corporation that holds an interest in any other sewer company.

A. Arthur Olson                      Phillip Grossman  
965 Westshore Drive              8707 Skokie Blvd.  
Fox lake, Il. 60020              Skokie, Il. 60077  
66-2/3% Ownership              33-1/3% Ownership  
The above members have no interest in any other sewer company or any limited liability company, partnership, or corporation that holds an interest in any other sewer company.

Q. What is the source of water supply for each of the residences.

A. All single-family residences shall be served by individually owned and operated wells.

Q. Explain why no easements are necessary on privately owned tracts of land for construction of the sewer system.

A. No easements are necessary on privately owned tracts of land because the entire sewer system is contained within the proposed subdivision.

Q Please provide a copy of the depreciation rates that will be utilized to begin establishing a depreciation reserve

A. The treatment facility shall be depreciated over 50 years therefore the rate of depreciation shall be set at 2.0% per year.

Q. Have you prepared financial statements (balance sheets) showing in detail the Company's assets, liabilities, and net worth for 2007, and projected balance sheets for 2008 through 2011.

A. I have prepared balance sheets and they are shown as Amended Attachment 5 to the Original Petition.

Q. Please provide the Company's experience in installing, operating and maintaining this type of sewer system in Illinois and in any other state. Please indicate the number and location of each of this type of sewer system that the Company is aware of that is currently operating in Illinois and in any other state.

230 A. Four locations in Illinois utilizing similar sewer systems are:

- 231
- 232 1) Village of New Minden – 119 Septic Tank Effluent Gravity
- 233 connections, 11 Septic Tank Effluent Pump connections, recirculating
- 234 granular filter, final dispersal to stream.
- 235 2) Village of Browns – 99 connections, recirculating sand filter, final
- 236 discharge to stream
- 237 3) Newport Cove – Lake County – 67 Septic Tank Effluent Pump
- 238 connections, recirculating sand filter, final dispersal to drip field.
- 239

240 Four Locations in others states.

- 241
- 242 1) South Alabama Utilities, Semmes, Alabama – Seven plants serving
- 243 2000 connections at build out
- 244 2) Diamond Lake Water and Sewer Commission, Washington – 500
- 245 connections
- 246 3) Elkton, Oregon – 100 connections
- 247 4) Applied Wastewater Management, Inc, - New Jersey – 3700
- 248 Connections
- 249

250 This particular system manufactured by Orenco utilizing a recirculating textile

251 packed bed filter has not been installed in Illinois. Mr. Olson has taken courses

252 at Orenco's headquarters in Sutherlin, Oregon in Operation and Maintenance of

253 Step Systems, Pressure sewers and media filters. M. Olson Qualifications can be

254 found in his Direct Testimony under Number 11 in Docket Numbers 07-0331 and

255 07-0332.

256

257 Q. What is RME Illinois' investment in this docket?

258

259 A. The Company is investing \$6000 per lot or \$264,000 toward construction of the

260 central plant and the developer is paying for the remainder of the construction

261 costs as Contribution in Aid of Construction.

262

263 Q. Do you have a detailed estimate of the cost of construction of the proposed sewer

264 system?

265

266 A I have a detailed estimate of the cost of construction of the proposed sewer system

267 shown as Exhibit No. 1.01-A and Exhibit 1.01-B to this testimony

268

269 Q. Does the company intend to follow the Uniform System of Accounts for Sewer

270 Utilities Operating in Illinois?

271

272 A. The company intends to follow the Uniform System of Accounts for Sewer

273 Utilities Operating in Illinois.

274

275 Q. What return on rate base is being proposed in the rates proposed?

276 A. The return being proposed on the rate base is 9%.

277  
278 Q. Does the company have a summary of the Annual Operating expenses for this  
279 Docket?

280  
281 A. Yes I have a summary of the Annual Operating Expenses and a breakdown which  
282 is attached to this testimony as Exhibit No. 1.01-C and 1.01-D

283  
284 Q. Has a revenue requirement schedule been provided for this docket.

285  
286 A. The revenue requirement schedule is included in Amended Attachment 5 to the  
287 original petition.

288  
289 Q. Do you have any other sources that can justify the operation and maintenance  
290 costs utilized in this docket.

291  
292 A. I have a copy of the nationwide averages for the operation and maintenance of  
293 that portion of the components manufactured by Orenco from Dr. Eric Lanning of  
294 Orenco. The document has been attached to this supplemental testimony as  
295 Exhibit 1.01-E.

296  
297 Q. Does this conclude your supplemental direct testimony?

298  
299 A. Yes.

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301  
302  
303  
304  
305  
306  
307



